COUNTY OF SAN DIEGO
Great Government Through the General Management System – Quality, Timeliness, Value
DEPARTMENT OF HUMAN RESOURCES

CLASS SPECIFICATION | CLASSIFIED

JUNIOR AIR POLLUTION CONTROL ENGINEER — Class No. 003694
ASSISTANT AIR POLLUTION CONTROL ENGINEER — Class No. 003693
ASSOCIATE AIR POLLUTION CONTROL ENGINEER — Class No. 003598

■ CLASSIFICATION PURPOSE

To perform professional level air pollution control engineering work involving field and plan evaluations of design, installation, and operation of air pollution control equipment and industrial and commercial processes; and to perform related work as required.

■ DISTINGUISHING CHARACTERISTICS

Junior Air Pollution Control Engineer:

This is the entry-level class in the Air Pollution Control Engineer series. Under immediate supervision, a Junior Air Pollution Control Engineer performs routine field and plan evaluations of basic air pollution control equipment and commercial and industrial processes.

Assistant Air Pollution Control Engineer:

This is the first working level class in the Air Pollution Control Engineer series. Under general supervision, an Assistant Air Pollution Control Engineer performs field and plan evaluations of basic processes and air pollution control equipment. As more experience is gained, incumbents receive progressively more responsible assignments. Incumbents in this class may also participate in special studies and field tests.

Associate Air Pollution Control Engineer:

This is the journey level class in the Air Pollution Control Engineer series. Under general direction, an Associate Air Pollution Control Engineer performs the full range of field and plan evaluations of industrial/commercial processes and air pollution equipment, requiring considerable judgment and initiative in developing solutions to air pollution control problems and interpreting and applying the district's rules, regulations, and procedures. Selected positions may lead the work of subordinate Air Pollution Control Engineers in completing specific projects.

■ FUNCTIONS

The examples of functions listed in the class specifications are representative but not necessarily exhaustive or descriptive of any one position in the classes. Management is not precluded from assigning other related functions not listed herein if such functions are a logical assignment for the position.

Junior Air Pollution Control Engineer

Essential Functions:

1. Assists in examining, evaluating, and approving the construction and operation of routine industrial and commercial processes and air pollution control equipment, in accordance with established standards, for emissions and control of air contaminants, and compliance with applicable regulations.

2. Assists in inspecting industrial and commercial processes, equipment, emission control devices, records and instrumentation to assure that the installation and operation of equipment comply with air pollution control requirements.

3. Assists in computing and correlating engineering data concerning basic air pollution control measures and equipment for industrial and commercial processes.

4. Assists in reviewing plans, permit applications, and making recommendations for the control of air pollutant emissions from industrial and commercial operations.

5. Assists in reviewing air pollutant emissions inventory reports, identifying errors, calculating emissions, and preparing summary reports.

Assistant Air Pollution Control Engineer

Essential Functions:

All the functions listed above and

1. Examines, evaluates, and makes recommendations on approval of the construction and operation of routine industrial and commercial processes and air pollution control equipment, in accordance with established standards for emissions and control of air contaminants.

2. Inspects industrial and commercial processes, equipment, emission control devices, operating records and instrumentation to ensure that the installation, licensing, and operation of equipment conforms to air pollution control requirements.

3. Computes and correlates engineering data concerning the installation of basic air pollution control equipment for industrial processes.

4. Reviews plans and applications and makes recommendations for the control of industrial operations with potential air pollution problems.

5. Reviews emission inventory reports.

6. Develops emission factors for industrial processes.

7. Collects and organizes data for summary reports.

8. Assists in evaluating and developing air pollution control rules and regulations, and in preparing recommended revisions to the rules.

Associate Air Pollution Control Engineer

Essential Functions:

All the functions listed above and

1. Evaluates more complex air pollution emission estimates and facility emission inventories.

2. Evaluates toxic air contaminant emissions from existing and future sources.

3. Prepares technical reports, flow charts, drawings, and sketches of processes and related equipment.

4. Sets up emissions test designs and documents equipment operations during emissions testing; answers inquires concerning emission control standards, Federal/State and District rules, regulations, procedures, and requirements.

5. Assists in preparing and conducting training programs for subordinate staff (professional and technical) for specific projects.

6. Prepares criteria and toxic pollutant emission inventories.

7. Reviews health risk assessments and applies results to project approvals.

8. Evaluates new developments or advances in air pollution control technology.

9. Develops new and amended district rules and regulations.

10. May testify as an expert witness on air pollution control matters as needed.

11. Represents the district on technical committees as needed.

■ KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

The following apply to all classes:

– The fundamentals of engineering practices, methods, techniques and the standard sources of general engineering information related to Air Pollution Control.
– Techniques and practices used to evaluate air pollution emitting equipment and control devices, such as: design specification, installation, and operation.

Assistant Air Pollution Control Engineer (in addition to the above):

- Industrial and commercial processes and operations including storage operations, combustion, coating, chemical, processes, mechanical processes and petroleum marketing.
- Air pollution control equipment design, operation, and use.
- Air pollution source inspection and emissions testing techniques.
- Air Pollution Control District rules and regulations.
- Air pollution regulatory programs.

Associate Air Pollution Control Engineer (in addition to the above):

- Critical operating parameters for basic and air pollution control equipment, and monitoring techniques to ensure proper operation.
- Federal and state regulations applicable to commercial and industrial sources of air pollution.
- Air pollution control technologies, design and performance evaluation techniques, and associated costs.

Skills and Abilities to:

The following apply to all classes:

- Conduct evaluations and inspections of industrial equipment and facilities related to contaminant emission capabilities.
- Apply engineering techniques and practices to air pollution control engineering problems.
- Use and maintain engineering and technical equipment relating to Air Pollution Control and abatement.
- Communicate effectively in oral and in written form.
- Establish and maintain effective working relationships with the public, staff, and representatives from public/private agencies.

Associate Air Pollution Control Engineer (in addition to the above):

- Examine, evaluate, and approve a wide range of commercial, industrial, and power generating processes and equipment for construction and operation relative to air pollution potential and the reduction and control of air contaminants.
- Evaluate the technical merits of air pollution emission estimates and facility emission inventories.
- Evaluate toxic air contaminant emissions from existing and future sources and identify public health risks.
- Prepare technical reports, flow charts, drawings, and sketches of processes and related equipment.
- Answer inquiries concerning emission control standards, Federal, State and District rules, regulations, procedures, and requirements.
- Train and review the work of professional and technical staff.

■ EDUCATION/EXPERIENCE

Education, training, and/or experience that demonstrate possession of the knowledge, skills and abilities listed above. Examples of qualifying education/experience are:

Junior Air Pollution Control Engineer:

A bachelor's degree from an accredited college or university in chemical engineering, mechanical engineering or environmental engineering or a closely related field.

Assistant Air Pollution Control Engineer:

A bachelor's degree from an accredited college or university in chemical engineering, mechanical engineering or environmental engineering, or closely related field AND, one (1) year of experience performing progressively responsible professional level engineering work. A Master of Science degree in chemical, mechanical or environmental engineering may substitute for the one year of experience.

Associate Air Pollution Control Engineer:

A bachelor's degree from an accredited college or university in chemical engineering, mechanical engineering or environmental engineering, or closely related field AND, three (3) years of experience performing progressively responsible professional level engineering work. Previous experience must have included one (1) year of experience performing professional level air pollution control engineering work.

Note: Additional years of experience as described above may substitute for the education requirement on a year-for-year basis, OR, completion of appropriate post-graduate course work from an accredited college or university may substitute for the experience requirement on a year-for-year basis.

■ ESSENTIAL PHYSICAL CHARACTERISTICS

The physical characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of the classifications. Reasonable accommodation may be made to enable an individual with qualified disabilities to perform the essential functions of a job, on a case-by-case basis.

Continuous upward and downward flexion of the neck. Frequent: sitting, repetitive use of hands to operate computers, printers and copiers, walking, standing, simple grasping. Occasional: bending and twisting of neck, bending and twisting of waist, squatting, climbing, kneeling, crawling, reaching above and below shoulder level, and lifting and carrying files weighing up to 10 pounds. May occasionally lift objects weighing 25-50 pounds. Incumbents may be required to climb ladders and conduct work at elevated heights.

■ SPECIAL NOTES, LICENSES, OR REQUIREMENTS

License

A valid California class C driver's license, which must be maintained throughout employment in this class, is required at time of appointment, or the ability to arrange necessary and timely transportation for field travel. Employees in this class may be required to use their own vehicle.

Certification/Registration

None Required.

Working Conditions

Incumbents may be exposed to dust, fumes, organic vapors, noxious gases, and high temperatures. For protection purposes, incumbents may be required to wear a respirator or other protection equipment. Facial hair that interferes with the respirator seal or prevents proper respirator operation shall be removed.

Background Investigation

Must have a reputation for honesty and trustworthiness. Misdemeanor and/or felony convictions may be disqualifying depending on type, number, severity, and recency. Prior to appointment, candidates will be subject to a background investigation.

Probationary Period

Incumbents appointed to a permanent position in these classes shall serve a probationary period of 12 months (Civil Service Rule 4.2.5).

New: September 30, 1994
Reviewed: Spring 2003
Revised: June 9, 2004
Revised: March 28, 2005
Revised: June 23, 2006

Junior Air Pollution Control Engineer (Class No. 003694)	Union Code: PR	Variable Entry: N
Assistant Air Pollution Control Engineer (Class No. 003693)	Union Code: PR	Variable Entry: N
Associate Air Pollution Control Engineer (Class No. 003598)	Union Code: PR	Variable Entry: Y